

APPENDIX 2

CONDITION LEVEL DATA

DETERMINATION OF STOCKING VALUES FOR LAND USE CLASSIFICATION

STOCKING REQUIREMENTS

Stocking values are required to determine if a condition is in a forested land use. This will determine which data items must be recorded for the condition. When the Condition Status is in question (usually a non-forest area that is in the process of reverting to forestland or a marginal site that can only support a low number of trees) the crew must determine if there is sufficient stocking to classify the condition as forest. A minimum stocking value of 10% is required for accessible forestland (unless the condition was previously forested and has not been placed in a nonforest land use, such as a recent clear cut).

The following tables show the number of trees per acre needed to achieve this minimum stocking value. In the determination of stocking for this purpose the field crew should consider the condition over its entire area, not just the trees and seedlings that would be tallied on the subplots and microplots, especially when the condition straddles the plot. Also, for stocking purposes consider a clump of trees (e.g., stump sprouts) less than 5 inches DBH to be a single tree.

The number of trees per acre needed to obtain minimum stocking depends on the DBH of largest tree in the condition (not necessarily a tally tree), the forest type of the condition, and the size of the trees. If the condition occurs on all 4 subplots and the trees are distributed fairly evenly over the entire condition area, the following steps can be used to determine if the condition has the minimum number of trees per acre for forestland:

Observe the diameter of the largest tree on the condition and classify the condition into one of the following groups, 5+, 4.0-4.9, 3.0-3.9, 2.0-2.9, 1.0-1.9 and < 1.0 inch DBH classes. If a 5 inch or larger tree is present, Table b will be used, otherwise use Table a.

Determine the appropriate forest type of the condition based on the tree species present in the condition and/or the forest type of similar conditions in the area.

Estimate the number of trees per acre by the diameter classes shown from the appropriate table. When a condition exists on all 4 of the 24-foot radius subplots each tally tree (DBH \geq 5.0 inch) represents 6 trees per acre and each sapling (DBH \geq 1.0 inch to < 5.0 inch) or seedling observed on the 4 microplots represents 75 trees per acre.

In sparse stands of smaller trees, a more accurate observation of trees per acre can be determined by observing trees < 5.0 inch DBH on the 24-foot radius subplot. In many forest types no more than 180 trees per acre of the largest diameter class are needed to meet the minimum stocking requirements, a total of 30 trees on all 4 subplots, 7 or 8 smaller trees on each subplot will provide minimum stocking.

When trees of more than one diameter class are present, their contribution towards meeting the minimum must be combined. For example:

In a lodgepole pine forest type, the largest tree in the condition is 5.0+ inch DBH. If 15 or more 5.0-6.9 inch trees were found on the four subplots the minimum of 90 trees per acre (Table b, 5th row, 6th column) would be met. In the same condition, only 3 tally trees in the 13.0-14.9 inch DBH class equal the 18 trees per acre in that diameter class. If the tally were three 5.0-6.9 inch trees ($18/90 = 1/5$ the minimum) and two 13.0-14.9 inch DBH class trees ($12/18 = 2/3$ the minimum) the combined stocking does not meet the minimum ($1/5 + 2/3 < 1$) and the condition would be classified non-forest.

Other things observed on the plot will influence the determination of condition status. In the last lodgepole pine example, evidence of a recent disturbance that reduced the stocking (cutting, fire, etc.) should be considered. Also, a very uneven distribution of trees across the condition can greatly change the observed number of trees per acre on plots installed across the condition.

If the condition does not cover all four subplots entirely, trees per acre must be expanded by an expansion factor. The expansion factor is equal to $400/(\text{sum of the percent of subplot area})$ for the condition. The trees per acre value of every diameter class is multiplied by this expansion factor.

If the trees are not uniformly distributed throughout the condition or the condition occurs on only a small portion of the plot, (half the plot or less), use your best judgment in assigning status. You may place several additional temporary subplots in the condition in order to get a larger sample to base stocking on. When additional temporary subplots or judgment is used to assign land use, a note should be made on the plot sheet. Use the following procedure to establish these temporary subplots in a condition:

- A. Consider locations 120.0 feet horizontal distance from the highest numbered subplot in the condition. First consider the location 0° azimuth from the subplot center. If this location is unsuitable, consider in order locations at azimuth 120°, and 240°. When a suitable location has been found, establish the temporary subplot. Temporary subplots should be entirely within the condition (locations should not be within 24.0 feet of a mapped boundary).
- B. If Step A fails to yield a suitable subplot location, repeat Step A at each of the next highest numbered regular subplot in the condition.
- C. If Steps A and B have been exhausted and a suitable temporary subplot still has not been found, repeat Step A at each temporary subplot in turn beginning with the first temporary subplot that was established.

If more than one temporary subplot is to be established, repeat Steps A and B to establish the second lowest numbered temporary subplot next, and continue in order until you have enough temporary subplots

established in the condition to get a good, representative estimate of stocking. The general rule for establishing temporary subplots is:

- Install the lowest temporary subplot off the highest established subplot, until all the established subplots have been exhausted.
- Then establish the lowest temporary subplot yet to be established off the lowest one already established (lowest off highest, then lowest off lowest).

If there is a transition zone between two conditions use your best judgment to be sure that trees tallied in the transition zone do not have too much weight in the assignment of a land use.

Table a. Number of trees per acre needed for minimum stocking (stocking value 10%) of forest land in conditions with no trees > 5 inch DBH.

Forest type	DBH of largest tree in the condition														
	4.0-4.9					3.0-3.9				2.0-2.9			1.0-1.9		<1.0
	DBH of tally tree														
	4.0-4.9	3.0-3.9	2.0-2.9	1.0-1.9	<1.0	3.0-3.9	2.0-2.9	1.0-1.9	<1.0	2.0-2.9	1.0-1.9	<1.0	1.0-1.9	<1.0	<1.0
Spruce-fir	120	150	200	300	620	120	160	240	490	120	180	370	120	250	120
Black spruce	120	150	190	260	430	110	140	200	340	100	140	260	90	170	90
Shortleaf pine	120	150	210	330	840	130	170	280	670	140	220	500	150	340	170
Slash pine	110	140	200	320	870	120	170	270	700	140	220	520	150	350	170
Long leaf pine	80	100	130	200	400	80	110	160	320	80	120	240	80	160	80
Pond pine	80	100	140	220	510	90	120	180	410	90	140	310	100	210	100
E. white pine	110	140	180	280	580	110	150	220	470	110	170	350	110	230	120
Loblolly pine	100	130	180	280	670	110	150	230	530	120	180	400	120	270	130
Douglas fir	120	150	200	310	670	120	170	250	540	130	190	400	130	270	130
N. white cedar	140	180	250	400	990	150	210	330	790	170	260	600	180	400	200
Eastern hemlock	120	150	210	360	1110	130	190	310	890	150	250	660	180	440	220
Red maple	90	110	140	220	470	90	120	180	380	90	140	280	90	190	90
Maple-beech-birch	80	100	140	230	590	90	120	190	480	100	150	360	110	240	120
Paper birch	80	110	150	240	640	90	130	200	510	100	160	380	110	250	130
Oak-hickory	70	90	120	190	430	80	100	160	350	80	120	260	80	170	90
Black walnut	60	80	110	160	340	70	90	130	270	70	100	210	70	140	70
Sweet gum	130	160	220	360	950	140	190	310	760	150	240	570	170	380	190
Cherry-ash-poplar	80	100	130	180	310	80	100	140	250	70	100	190	70	120	60
Basswood	100	120	170	290	840	110	150	250	670	120	200	500	140	330	170
Elm-ash-cottonwood	80	100	140	230	600	90	120	190	480	100	150	360	110	240	120

Table b. Number of trees per acre needed for minimum stocking (stocking value 10%) of forest land in conditions with at least one tree 5 inch DBH or larger.

	DBH of tally tree																	
Forest Type	<1.0	1.0-1.9	2.0-2.9	3.0-3.9	4.0-4.9	5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-22.9	23.0-24.9	25.0-26.9	27.0-28.9	29.0+
Spruce-fir	740	350	230	170	140	60	40	27	20	16	13	10	9	8	7	6	5	5
Black spruce	510	310	220	170	140	70	50	35	29	24	21	18	16	15	13	12	11	10
Jack pine	630	280	180	130	110	50	30	19	14	11	9	7	6	5	4	4	3	3
Shortleaf pine	1010	390	240	180	140	60	30	22	15	11	9	7	6	5	4	3	3	3
Slash pine	1040	380	230	170	130	60	30	20	13	10	7	6	5	4	3	3	2	2
Long leaf pine	480	240	160	120	90	40	30	19	14	11	9	7	6	5	5	4	4	3
Pond pine	620	260	170	120	100	40	30	17	12	9	7	6	5	4	3	3	3	2
E. white pine	700	330	220	160	130	60	40	24	18	14	11	9	8	7	6	5	5	4
Loblolly pine	800	330	210	150	120	60	30	20	14	11	8	7	6	5	4	3	3	3
E. hemlock	1330	420	250	180	140	60	30	19	12	9	6	5	4	3	3	2	2	2
Red maple	560	260	170	130	100	50	30	19	14	11	9	7	6	5	4	4	4	3
Map.-beech-bir.	710	270	170	120	90	40	20	15	10	7	6	4	4	3	3	2	2	2
Paper birch	760	280	170	130	100	50	20	15	10	7	6	4	4	3	3	2	2	2
Oak-hickory	520	230	150	110	80	40	20	15	11	8	7	5	4	4	3	3	2	2
Black walnut	410	190	130	90	80	30	20	14	11	8	7	6	5	4	4	3	3	2
Sweet gum	1150	430	260	190	150	70	40	23	16	12	9	7	6	5	4	3	3	3
Cher.-ash-poplar	370	220	150	120	100	40	30	23	18	15	13	11	10	9	8	7	7	6
Basswood	1000	340	200	150	110	50	30	16	11	8	6	4	4	3	2	2	2	2
Elm-ash-ctwd.	720	270	170	120	90	40	20	15	10	7	6	4	4	3	3	2	2	2

EASTERN FOREST TYPE DESCRIPTIONS

WHITE/RED/JACK PINE GROUP

- 103 Eastern white pine: Associates – pitch pine, gray birch, aspen, red maple, pin cherry, white oak, paper birch, sweet birch, yellow birch, black cherry, white ash, northern red oak, sugar maple, basswood, hemlock, northern white-cedar, yellow-poplar, white oak, chestnut oak, scarlet oak, and shortleaf pine. Sites--wide variety, but best development on well drained sands and sandy loams.
- 104 Eastern white pine/ Eastern hemlock: Associates – beech, sugar maple, basswood, red maple, yellow birch, black cherry, white ash, paper birch, sweet birch, northern red oak, white oak, chestnut oak, yellow-poplar, and cucumbertree. Sites--wide variety but favors cool locations, moist ravines, and north slopes.
- 105 Eastern hemlock: Associates – beech, sugar maple, yellow birch, basswood, red maple, black cherry, white ash, white pine, paper birch, sweet birch, northern red oak, and white oak. Sites--cool locations, moist ravines, and north slopes.

SPRUCE/FIR GROUP

- 121 Balsam fir: Associates – black, white, or red spruce; paper or yellow birch; quaking or bigtooth aspen, beech; red maple; hemlock; tamarack; black ash; or northern white-cedar. Sites--upland sites on low lying moist flats and in swamps.
- 123 Red Spruce: Associates – vary widely and may include red maple, yellow birch, eastern hemlock, eastern white pine, white spruce, northern white-cedar, paper birch, pin cherry, gray birch, mountain ash, beech, striped maple, sugar maple, northern red oak, red pine, and aspen. Sites--include moderately well drained to poorly drained flats and thin-slopes and on varying acidic soils in abandoned fields and pastures. This code should be used where red spruce comprises a plurality or majority of the stand's stocking but where balsam fir is either nonexistent or has very little stocking. Otherwise the plot would be coded 124, red spruce/balsam fir.
- 124 Red spruce/balsam fir: Associates – red maple, paper birch, white pine, hemlock, white spruce, and northern white-cedar. Sites--moderately drained to poorly drained flats or on thin-soiled upper slopes.

LONGLEAF/SLASH PINE GROUP

- 141 Longleaf pine: Longleaf pine occurs as a pure type or comprises a majority of the trees in the overstory. Associates--slash, loblolly and shortleaf pine, southern red oak, blackjack oak, water oak, persimmon, and sweetgum. Sites--those areas that can and do burn on a periodic basis--usually occurs on middle and upper slopes with a low severity of hardwood and brush competition. Regional distribution--coastal plain and piedmont units.
- 142 Slash pine: Slash pine is pure or provides a majority of the stocking. Associates--on moist sites; a wide variety of moist-site hardwoods, pond pine, and pondcypress. On dry sites; a wide variety of dry-site hardwoods, longleaf, loblolly, and sand pine. Sites--both moist and well-drained flatwoods, and bays. Regional distribution--coastal plain and piedmont units from North Carolina to Florida.

LOBLOLLY/SHORTLEAF PINE GROUP

- 161 Loblolly pine: Associates – sweetgum, southern red oak, post oak, blackjack oak, blackgum, yellow-poplar, and pond pine. Sites--upland soils with abundant moisture but good drainage and on poorly drained depressions.
- 162 Shortleaf pine: Associates – white oak, southern red oak, scarlet oak, black oak, hickory, post oak, blackjack oak, blackgum, red maple, pitch pine, and Virginia pine. Sites--low, well drained ridges to rocky, dry, south slopes and the better drained spur ridges on north slopes and also on old fields.
- 163 Virginia pine: Associates – shortleaf pine, white oak, chestnut oak, southern red oak, black oak, sweetgum, red maple, blackgum, and pitch pine. Sites--dry sites, often abandoned fields.
- 164 Sand pine: Sand pine occurs in pure stands or provides a majority of the stocking. Associates--dwarf live oak, dwarf post oak, turkey oak, persimmon, and longleaf pine. Sites--dry, acidic, infertile sands. Regional distribution--found chiefly in the central peninsula and panhandle of Florida, although planted stands extend into the sandhills of Georgia and South Carolina.
- 165 Table-mountain pine: Associates – chestnut oak, scarlet oak, pitch pine, pine, and black oak. Sites--poor, dry, often rocky slopes.
- 166 Pond pine: Associates – loblolly pine, sweetgum, baldcypress, and Atlantic white-cedar. Sites--rare, but found in southern New Jersey, Delaware, and Maryland in low, poorly drained acres, swamps, and marshes.
- 167 Pitch pine: Associates – chestnut oak, scarlet oak, table-mountain pine, black oak, and blackgum. Sites--relatively infertile ridges, dry flats, and slopes.

168 Spruce pine: Spruce pine comprises a majority of the stocking. Associates--any of the moist site softwood or hardwood species. Sites--moist or poorly drained areas. Regional distribution--this type is rarely encountered and is found almost exclusively in the coastal plain.

PINYON / JUNIPER GROUP

181 Eastern redcedar: Associates – gray birch, red maple, sweetbirch, Virginia Pine, shortleaf pine, oak. Sites--usually dry uplands and abandoned fields on limestone outcrops and other shallow soils but can grow well on good sites.

182 Rocky Mountain juniper

184 Juniper woodland

185 Pinyon juniper woodland

PONDEROSA PINE GROUP

221 Ponderosa pine

OTHER WESTERN SOFWOODS GROUP

366 Limber pine

368 Miscellaneous western softwoods

EXOTIC SOFWOODS GROUP

381 Scotch pine: plantation type, not naturally occurring.

382 Australian pine:

383 Other exotic softwoods

384 Norway spruce: plantation type, not naturally occurring

OAK/PINE GROUP

- 401 Eastern white pine/northern red oak/white ash: Associates – red maple, basswood, yellow birch, bigtooth aspen, sugar maple, beech, paper birch, black cherry, hemlock, and sweet birch. Sites--deep, fertile, well-drained soil.
- 402 Eastern redcedar/hardwood: Associates – oak, hickory, walnut, ash, locust, dogwood, blackgum, hackberry, winged elm, shortleaf pine, and Virginia pine. Sites--usually dry uplands and abandoned fields.
- 403 Longleaf pine/oak: Longleaf pine and scrub oaks--primarily turkey, bluejack, blackjack, and dwarf post oak--comprise the type. Associates--southern scrub oaks in the understory. Sites--common on sandhills where soils are dry, infertile, and coarse textured. Regional distribution-- coastal plain and piedmont units.
- 404 Shortleaf pine/oak: Associates - (oaks generally include white, scarlet, blackjack, black, post, and southern red) hickory, blackgum, sweetgum, Virginia pine, and pitch pine. Sites--generally in dry, low ridges, flats, and south slopes.
- 405 Virginia pine/southern red oak: Associates – black oak, scarlet oak, white oak, post oak, blackjack oak, shortleaf pine, blackgum, hickory, pitch pine, table-mountain pine, chestnut oak. Sites--dry slopes and ridges.
- 406 Loblolly pine/hardwood: Associates – wide variety of moist and wet site hardwoods including blackgum, sweetgum, yellow-poplar, red maple, white and green ash, and American elm; on drier sites associates include southern and northern red oak, white oak, post oak, scarlet oak, persimmon, and hickory. Sites--usually moist to very moist though not wet all year but also on drier sites.
- 407 Slash pine/hardwood: Slash pine and a variable mixture of hardwoods comprise the type. Associates-- codominant with the slash pine component are sweetbay, blackgum, loblolly-bay, pondcypress, pond pine, Atlantic white-cedar, red maple, ash, and water oak. Sites--undrained or poorly drained depressions such as bays or pocosins and along pond margins. Regional distribution--primarily coastal plain units.

409 Other pine/hardwood:

OAK/HICKORY GROUP

- 501 Post oak/blackjack oak: Associates – blackjack oak, hickory, southern red oak, white oak, scarlet oak, shingle oak, live oak, shortleaf pine, Virginia pine, blackgum, sourwood, red maple, winged elm, hackberry, chinkapin oak, shumard oak, dogwood, and eastern redcedar. Sites--dry uplands and ridges.

- 502 Chestnut oak: Associates – scarlet oak, white oak, black oak, post oak, pitch pine, blackgum, sweetgum, red maple, red oak, shortleaf pine, Virginia pine. Sites--rocky outcrops with thin soil, ridge tops.
- 503 White oak/red oak/hickory: Associates – scarlet oak, bur oak, pinoak, white ash, sugar maple, red maple, walnut, basswood, locust, beech, sweetgum, blackgum, yellow-poplar, and dogwood. Sites--wide variety of well drained upland soils.
- 504 White oak: Associates – black oak, northern red oak, bur oak, hickory, white ash, yellow-poplar. Sites--scattered patches on upland, loamy soils but on drier sites than type 503.
- 505 Northern red oak: Associates – black oak, scarlet oak, chestnut oak, and yellow-poplar. Sites--spotty distribution on ridge crests and north slopes in mountains but also found on rolling land, slopes, and benches on loamy soil.
- 506 Yellow-poplar/white oak/northern red oak: Associates – blackoak, hemlock, blackgum, and hickory. Sites--northern slopes, coves, and moist flats.
- 507 Sassafras/persimmon: Associates – elm, eastern redcedar, hickory, ash, sugar maple, yellow-poplar, and oaks. Sites--abandoned farmlands and old fields.
- 508 Sweetgum/yellow-poplar: Associates – red maple, white ash, green ash, and other moist site hardwoods. Sites--generally occupies moist, lower slopes.
- 509 Bur oak: Associates—northern pin oak, black oak, chinkapin oak, and eastern redcedar in northern and dry upland sites; shagbark hickory, black walnut, eastern cottonwood, white ash, American elm, swamp white oak, honey locust, and American basswood in southern and lowland sites. Sites – drier uplands to moist bottomlands with the drier uplands more common in the northern part of the range and the moist bottomlands more common in the southern part of the range.
- 510 Scarlet oak: Associates – black oak, southern red oak, chestnut oak, white oak, post oak, hickory, pitch pine, blackgum, sweetgum, black locust, sourwood, dogwood, shortleaf pine, and Virginia pine. Sites--dry ridges, south- or west-facing slopes and flats but often moister situations probably as a result of logging or fire.
- 511 Yellow-poplar: Associates – black locust, red maple, sweet birch, cucumbertree, and other moist-site hardwoods (except sweetgum, see type 508) and white oak and northern red oak (see type 503). Sites--lower slopes, northerly slopes, moist coves, flats, and old fields.
- 512 Black Walnut: Associates – yellow-poplar, white ash, black cherry, basswood, beech, sugar maple, oaks, and hickory. Sites--coves and well-drained bottoms.

- 513 Black locust: Associates – many species of hardwoods and hardpines may occur with it in mixture, either having been planted or from natural seeding. Sites--may occur on any well-drained soil but best on dry sites, often in old fields.
- 514 Southern scrub oak: This forest cover type consists of a mixture of scrub oaks that may include several of the following species: turkey oak, bluejack oak, blackjack oak, dwarf post oak, and dwarf live oak. Sites--dry sandy ridges--the type frequently develops on areas formerly occupied by longleaf pine. Regional distribution--common throughout all coastal plain units and into the lower piedmont.
- 515 Chestnut oak / black oak / scarlet oak: Associates—northern and southern red oaks, post oak, white oak, sourwood, shagbark hickory, pignut hickory, yellow-poplar, blackgum, sweetgum, red maple, eastern white pine, pitch pine, Table Mountain pine, shortleaf pine, and Virginia pine. Sites—dry upland sites on thin-soiled rocky outcrops on dry ridges and slopes.
- 519 Red maple / oak: Associates – the type is dominated by red maple and some of the wide variety of central hardwood associates include upland oak, hickory, yellow-poplar, black locust, sassafras as well as some central softwoods like Virginia and shortleaf pines. Sites -- uplands.
- 520 Mixed upland hardwoods: Associates – Any mixture of hardwoods of species typical of the upland central hardwood region, should include at least some oak. Sites--wide variety of upland sites.

OAK/GUM/CYPRESS GROUP

- 601 Swamp chestnut oak/cherrybark oak: Associates – white ash, hickory, white oak, shumard oak, blackgum, sweetgum, southern red oak, post oak, American elm, winged elm, yellow-poplar, and beech. Sites--within alluvial flood plains of major rivers on all ridges in the terraces and on the best fine sandy loam soils on the highest first bottom ridges.
- 602 Sweetgum/Nuttall oak/willow oak: Associates – green ash, American elm, pecan, cottonwood, red maple, honeylocust, and persimmon. Sites--very wet.
- 605 Overcup oak/water hickory: Associates – willow oak, American elm, green ash, hackberry, persimmon, and red maple. Sites--in South within alluvial flood plains in low, poorly drained flats with clay soils; also in sloughs and lowest backwater basins and low ridges with heavy soils that are subject to late spring inundation.
- 606 Atlantic white-cedar: Associates – North includes gray birch, pitch pine, hemlock, blackgum, and red maple. South includes pond pine, baldcypress, and red maple. Sites--usually confined to sandy-bottomed, peaty, interior, and river swamps, wet depressions, and stream banks.

607 Baldcypress/water tupelo: Associates – willow, red maple, American elm, persimmon, overcup oak, and sweetgum. Sites--very low, poorly drained flats, deep sloughs, and swamps wet most all the year.

608 Sweetbay/swamp tupelo/red maple: Associates – blackgum, loblolly and pond pines, American elm, and other moist-site hardwoods. Sites--very moist but seldom wet all year--shallow ponds, muck swamps, along smaller creeks in Coastal Plain (rare in Northeast).

ELM/ASH/COTTONWOOD GROUP

701 Black ash/American elm/red maple: Associates – silver maple, swampwhite oak, sycamore, pin oak, blackgum, white ash, and cottonwood. Sites--moist to wet areas, swamps, gullies, and poorly drained flats.

702 River birch/sycamore: Associates – red maple, black willow, and other moist-site hardwoods. Sites--moist soils at edges of creeks and rivers.

703 Cottonwood: Associates – willow, white ash, green ash, and sycamore. Sites--streambanks where bare, moist soil is available.

704 Willow: Associates – cottonwood, green ash, sycamore, pecan, American elm, red maple, and boxelder. Sites--streambanks where bare, moist soil is available.

705 Sycamore/pecan/American elm: Associates – boxelder, green ash, hackberry, silver maple, cottonwood, willow, sweetgum, and river birch. Sites--bottomlands, alluvial flood plains of major rivers.

706 Sugarberry/hackberry/elm/green ash: Associates – pecan, blackgum, persimmon, honeylocust, red maple, hackberry, and boxelder. Sites--low ridges and flats in flood plains.

707 Silver maple/American elm

708 Red maple/lowland

709 Cottonwood/willow: Associates – white ash, green ash sycamore, American elm, red maple and boxelder. Sites – stream banks where bare, moist soil is available.

MAPLE/BEECH/BIRCH GROUP

801 Sugar maple/beech/yellow birch: Associates – basswood, red maple, hemlock, northern red oak, white ash, white pine, black cherry, sweet birch, American elm, rock elm, and eastern hophornbeam. Sites--fertile, moist, well-drained sites.

802 Black cherry: Associates – sugar maple, northern red oak, red maple, white ash, basswood, sweet birch, butternut, American elm, and hemlock. Sites--fertile, moist, well-drained sites.

803 Cherry/ash/yellow-poplar: Associates – sugar maple, American beech, northern red oak, white oak, blackgum, hickory, cucumbertree, and yellow birch. Sites -- fertile, moist, well-drained sites.

805 Hard maple/basswood: Associates – white ash, northern red oak, eastern hophornbeam, American elm, red maple, eastern white pine, eastern hemlock. Sugar maple and basswood occur in different proportions but together comprise the majority of the stocking. Sites -- fertile, moist, well-drained sites.

807 Elm/ash/locust: Associates – Locust, silver maple, boxelder, elm, red maple, green ash predominate. Found in North Central region, unknown in Northeast. Sites--upland

809 Red maple/upland: Associates — the type is dominated by red maple and some of the wide variety of northern hardwood associates include sugar maple, beech, birch, aspen, as well as some northern softwoods like white pine, red pine, and hemlock; this type is often man-made and may be the result of repeated cuttings. Sites -- uplands. (See Type 519 under oak/hickory group)

WESTERN OAK GROUP

925 Deciduous oak woodland

OTHER WESTERN HARDWOODS GROUP

952 Mesquite woodland

955 Miscellaneous western hardwood woodlands

TROPICAL HARDWOODS GROUP

981 Sabal palm:

982 Mangrove: Forests in which mangrove comprises a majority of the stocking. Associates--cabbage palm on some of the higher sites in the area. Sites--predominantly salt marshes; mangrove frequently develops its own island or shoreline made up of a dense mat of root structures. Regional distribution--restricted to South Florida and the Keys.

989 Other tropical:

EXOTIC HARDWOODS GROUP

991 Paulownia:

992 Melaleuca:

993 Eucalyptus:

995 Other exotic hardwoods:

NON STOCKED

999 The site qualifies as forest but is presently stocked with too few trees to assign a forest type.